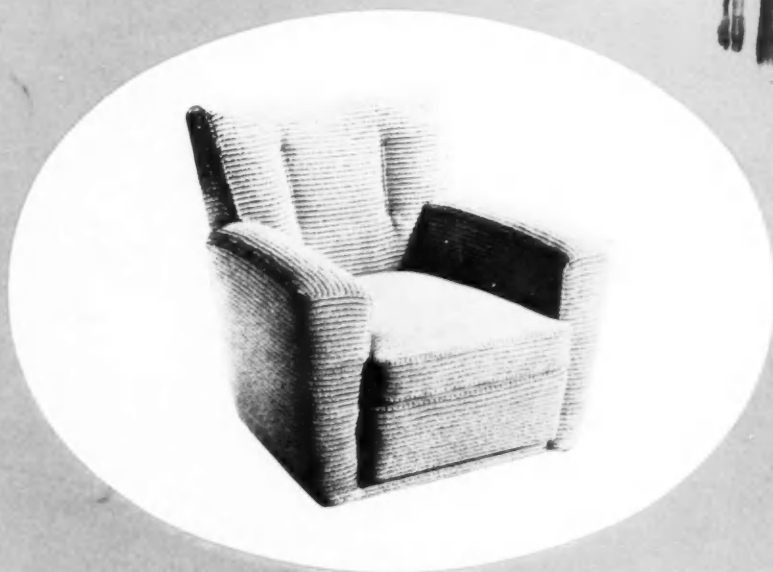


DESIGN

A monthly journal for manufacturers and designers



1951 STOCK LIST SELECTION

THE BASLE FAIR

PLAN FOR AN ENGINEERING DESIGN CENTRE

NEWS OF NEW PRODUCTS

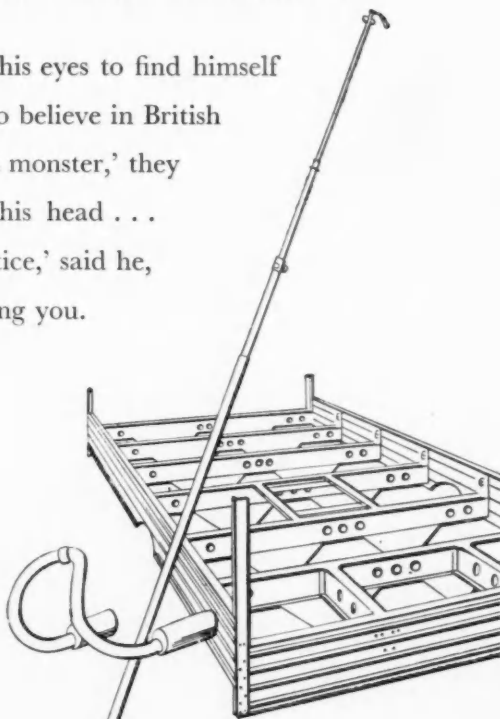
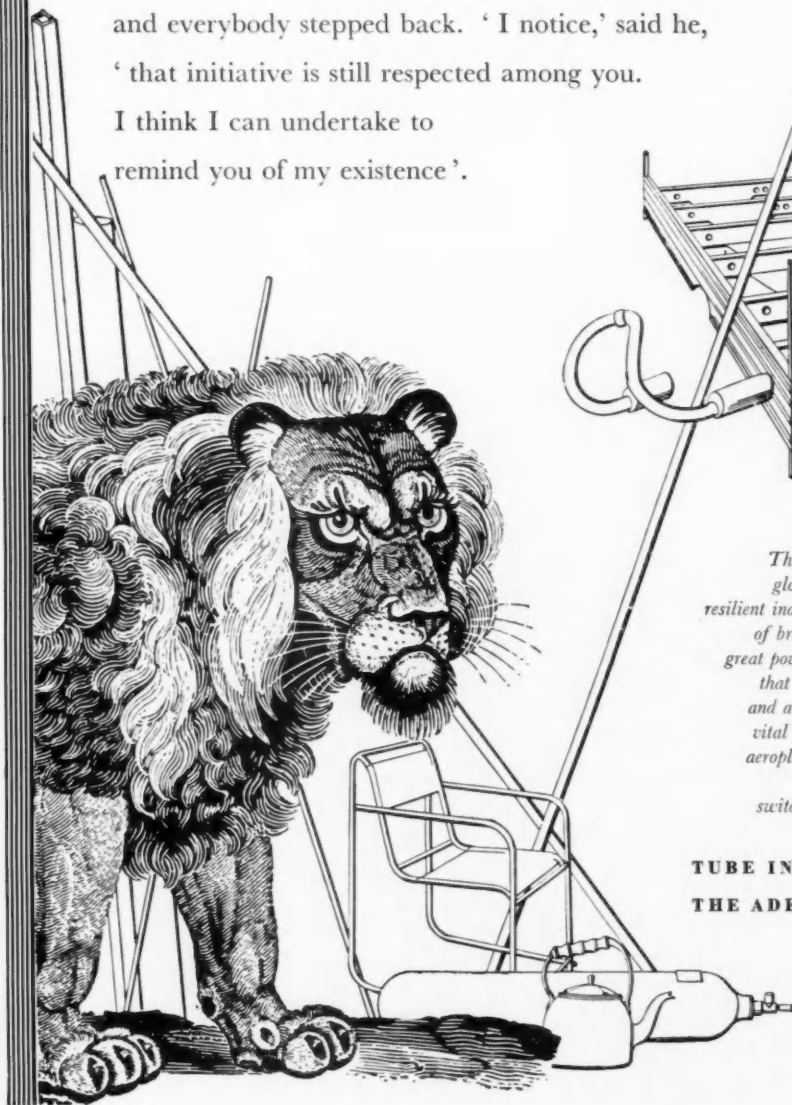
COUNCIL OF INDUSTRIAL DESIGN

NUMBER 8 : AUGUST 1949

PRICE TWO SHILLINGS

the fable of the lion who blinked

There was once a Lion who opened his eyes to find himself in a world where nobody professed to believe in British Lions any more. 'You're a fabulous monster,' they told him. At that the Lion lifted his head . . . and everybody stepped back. 'I notice,' said he, 'that initiative is still respected among you. I think I can undertake to remind you of my existence'.



The past year has shown, to many a gloomy prophet, just how stubbornly resilient industrial Britain can be. In terms of brains and experience we are a very great power. And TI are busy translating that into terms of precision steel tubes and aluminium alloy products . . . into vital parts for locomotives, ships, cars, aeroplanes . . . into bicycles . . . into a thousand things from electric switchgear to fishing rods and arrows.

**TUBE INVESTMENTS LIMITED
THE ADELPHI, LONDON, W.C.2**



DESIGN

A monthly journal for manufacturers and designers

ISSUED BY THE COUNCIL OF INDUSTRIAL DESIGN AND THE SCOTTISH COMMITTEE OF THE COUNCIL

NUMBER 8 : AUGUST 1949

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DESIGN CENTRES LEAD THE WAY

TEXTILE DESIGN cannot stand still and cannot stand alone. This was the challenging theme of an exhibition held at the Rayon Industry Design Centre in London in July and August. At the same time, the Cotton Board Colour, Design and Style Centre was showing in Manchester over 5000 samples of fabrics from over a dozen foreign countries. Thus the Textile Design Centres take the lead in emphasising three vital aspects of design in industry—the continuing development of design from one generation to another, the interdependence of design from one industry to another, and the cross-fertilisation of ideas from one country to another.

However pompous these phrases may seem, they are sound common sense and good business practice. Let us examine them in ascending order of controversy. First, cross-fertilisation of ideas from one country to another: there is nothing alarming in this. No country can be immune from outside influences. Fashions and styles know few frontiers, whether the vogue is for the "Chinese taste" which, like beards, has appeared and reappeared through history, or for a Greek Revival or for an angular modernism. The point underlined by the Cotton Board is that a trading nation like Britain must be unusually alert to foreign tastes and future trends.

Second, the interdependence of design from one industry to another. No one would question this in the fashion trades; hats and shoes are not conceived regardless of what goes between them—but how many wallpaper manufacturers keep a close watch on textile

designs? How many furnishing-fabric makers work out their designs in concert with the makers of carpets, or *vice versa*? Or how many cutlers consider the plates and the glasses and the linen with which their knives and forks will be used to dress a table? In the days of hand craftsmanship these compliments were paid almost by instinct. Today they demand conscious effort and concerted policies. Here again we can record two leads given by Design Centres: in April this year the Cotton Board staged an exhibition of wallpaper patterns and, in London, the Interior Decoration Design Centre of the British Colour Council has recruited the support of eight different industries.

Last, the thorny problem of the continuing development of design from one generation to another—or, in other words, the emergence in each generation of a contemporary style. In asking for a contemporary tradition, the Rayon Industry Design Centre is not suggesting—and no sane person would—that our industrialists should scrap all their profitable period lines. Nor is it belittling the value of roots. The argument is simply that one day our customers will demand of us the same self-reliance in design which our ancestors showed. There is a moral to be drawn from the recently reported order by the United Nations' headquarters for £2,500,000 of furniture. This order by-passed Britain and went to Sweden. Why Sweden? Because that country has a world-wide reputation for contemporary design.

P. R.

1951 STOCK LIST SELECTION : 2

Recent additions with a commentary by P. Morton Shand

1 Simple shapes are by no means always simply arrived at or invented. Every good engineer aspires to make the machines he has to design as simple and compact as is consonant with their use. This example shows that in his own field an electrical engineer can have as keen "an eye for form" as a skilled potter. It is perhaps only fair to add that since much electrical machinery needs to be encased, simple and smooth overall forms for things like turbo-generators are easier to devise than in the case of mechanical looms. This applies to some extent to railway engines as well, and the "Englishness" of the Pacific locomotive illustrated last month finds a minor echo in the excellent finish and tidiness of the small electric furnace illustrated.

2 Good plastic forms always have a straightforward look of being just what they are: mouldings or pressings from a synthetic material of medium weight and considerable strength, which has a hard, smooth and even surface. Bad plastic forms may be recognised at once because they seek to imitate metal, wood, glass or glazed earthenware either in shape or texture, if not indeed in both.

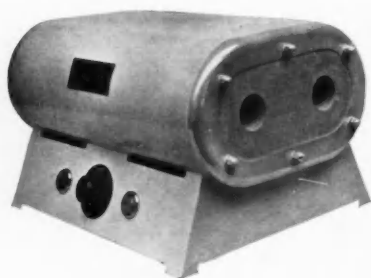
The five urea cosmetic boxes and casings shown on the opposite page are typical of the simple symmetric

forms and good clean finish this material can so easily be made to produce and which are characteristic of it at its best. It will be noticed that though some decorative motif or a proprietary name is centrally placed in all of them, there is one which involuntarily arrests the eye as striking a false note. Had its incised name been in good clean lettering like the others, instead of in fanciful facsimile handwriting, its appearance would have been equally unexceptionable.

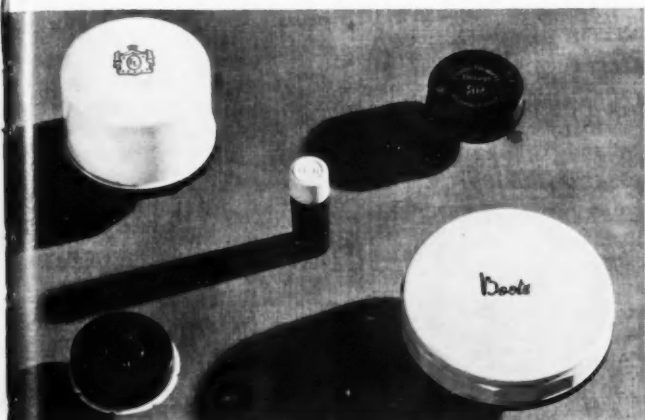
3 A name obviously had to be found to convey what these discs are used for since this is not immediately apparent. That chosen sounds rather a formidable one to describe something small enough to fit into the hollow of one's hand which blows up a cloud of dust on the same principle as thumb-operated oil-cans for sewing machines, bicycles, etc. These "insufflators" can be employed for spreading insecticides like DDT or for talc and similar toilet powders. Here again a simple but decidedly attractive shape springs from an intelligent adaptation of the material to its purpose—acetate sheeting is just as flexible for the slight pressure required as a thin membrane of metal—and a sense of the proportions proper to that particular shape.

4 Anyone who remembers the old original telephone apparatus with its complicated assemblage of metal and vulcanite parts and its cumbrous wooden box surmounted by a pair of rusty bells will readily admit that the use of plastics has revolutionised the appearance of telephone instruments besides enormously improving their efficiency. And as plastics now offer a range of colours, telephones no longer need to be hidden away from sight in some hall recess or inconvenient closet.

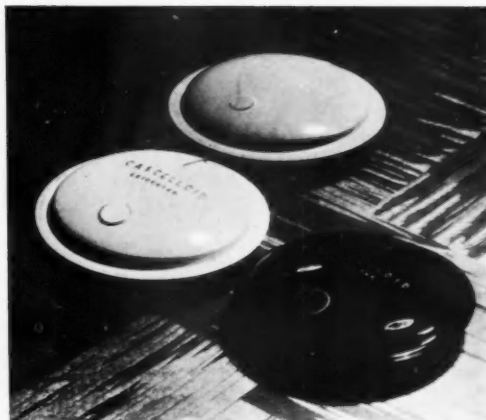
Most nations now depend on precisely the same mechanical devices, yet the forms in which these are embodied almost invariably differ to some extent



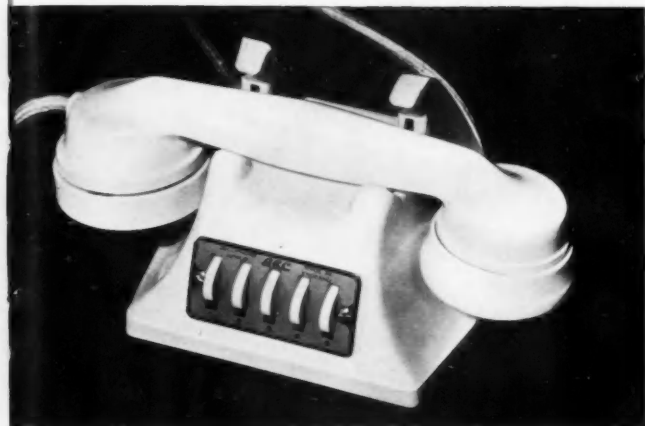
1 Electric furnace by Wild-Barfield
Electric Furnaces Ltd



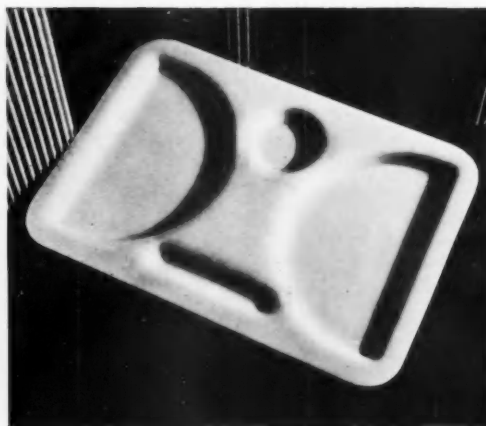
2 Containers by Universal Metal Products Ltd, Manchester



3 Insulators made by Casceloid Ltd, Leicester



4 Gecophone Junior intercommunication office telephone by General Electric Co Ltd. Moulded in Beetle



5 Cafeteria tray by Runcolite Ltd, designed by Gaby Schreiber, FSTA

country by country. "Nationality will out" in every field of design, functional as decorative. So it is even with telephones. Continental models usually have lower microphone rests, flatter-placed dials and shallower mouth- and ear-pieces with a rounder and more segmentally curved hand-grip between them. They also generally discard the dorsal ridge of our standard GPO hand-microphone: a useful feature reproduced in this smaller inter-communication instrument which makes it more comfortable to hold.

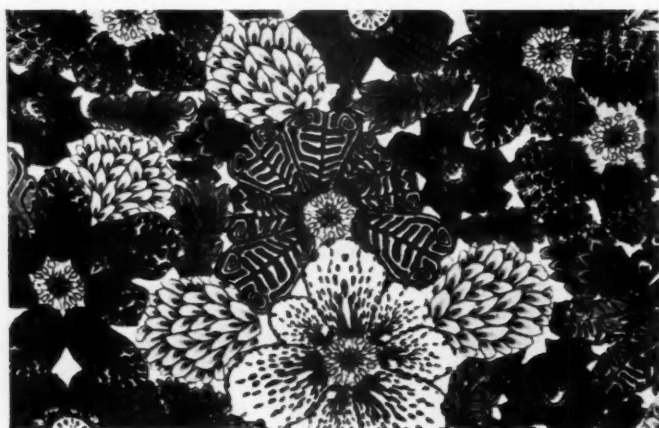
5 The cafeteria system may not have won universal approval, but there is probably little doubt that it has come to stay. As a new form of catering it has

created the demand for a rectangular compartmented dish in which several small plates and pots are combined with the tray to carry them on to form a single platter. Pressed plastic sheeting (of acrylic resin in the present case) offers an ideal solution of the problem, being light, strong, easily cleaned and little subject to breakages or cracking. It also lends itself to well-radiused curves and surface depressions of sufficient depth to simplify close stacking. The result is yet another pleasantly symmetrical shape, though it is a little difficult to grasp the intended use of the narrow elongated groove at the bottom. It must be rather difficult to get salt, mustard, salad-dressing, etc, out of it. Is it meant for cutlery?

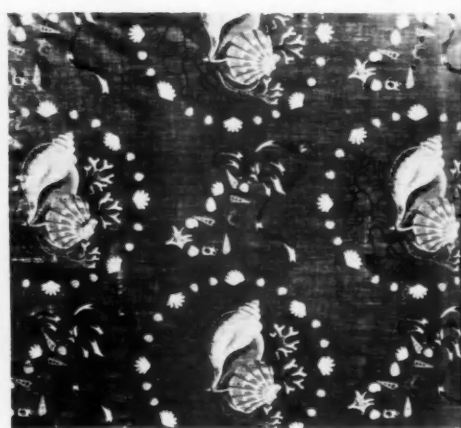
continued overleaf



6 and 7 Furnishing fabrics by Hill, Brown Ltd, designed by Jacqueline Groag, MSIA



8 Dress fabric of Lyons Silks Ltd, printed by Stutz Bros Ltd, Crayford



9 Chair-cover cretonne for Heal & Son Ltd

1951 STOCK LIST SELECTION : 2

continued

6 One type of decorative motif characteristic of modern textiles relies on bare outline forms devoid of either interior detail or surface shading. It needs extremely skilful handling to be effective because a good, or rather accurate, outline drawing of the shapes chosen would be too lifeless for a repetitive design. Slight distortion is essential and an eye for the right numerical balance between different sizes of the same objects—in this case simplified (that is unveined) leaves. Contrast in size is supplemented by contrast in rhythm. The fronds of larger leaves are brought into central focus by similar fronds of smaller ones;

and these in turn are given movement and direction by ropes of still smaller ones that undulate across them like climbing caterpillars. Further accentuation is obtained by picking out certain leaves, apparently haphazard, in primrose or white, while the rest are left in background grey. The intervals between these have been most carefully studied. Not a little of the success of this pattern depends on the different proportion of light to dark leaves in each of the three sizes.

7 Another example of the simplified outline technique though handled in a rather different manner, the majority of the leaves being divided along their spines so that one side appears sunlit and the other

remains in dark shadow. Here the background is a deep chocolate with the leaves outlined in pale turquoise blue and white. Three types of foliage are employed, that predominating being freely conventionalised oak-leaves. The vitality of the design largely springs from the divergent directions in which the foliage seems to be blown. This, together with apparently casual spacing that has been very carefully calculated, effectively prevents the eye from breaking up the pattern into successions of the motif-unit it is based on, since these are too entwined to unravel from one another without close scrutiny.

8 Here we have a textile design, the petal treatment and chromatic richness of which certainly owe something to Chinese embroidery. On the other hand, the way the background has been all but eliminated so as to achieve kaleidoscopic contrasts by means of edge-to-edge arrangements of different floral shapes in the most vivid colourings is wholly European and of today. What might seem to be extreme crowding of the component motifs likely to subdue the intended effect is a deliberate device that allows their cumulative brilliance to be maintained even when seen from some way off. This is based on the fact that distance either makes a plain background predominate over the motifs it is meant to throw into relief, or else generalises the latter so that broken patches of the ground colour appear to be the actual pattern of the design and the blurred motifs no more than its incidental background.

9 This pattern, too, shows Chinese influence, though more in respect of spacing and the graduation of the cool colours it relies on—soft pink, white, dark blue and a very little brown on a pale green background. The choice of seashell and seaweed motifs and the way they are grouped in constellations is altogether modern and English. These motifs seem to have been directly inspired by the late Edward Wadsworth's tempera paintings of natural and nautical marine objects: pictures that might equally well be called abstract mural decorations.

10: *Illustration on cover: Upholstered armchair made by H. K. Furniture Ltd, designed by H. B. Keith*

In the process of evolving a more comfortable and less ceremonious form of armchair a perhaps inevitable phase of ugly and unwieldy shapes has now come to an end. These had the disadvantage of being unduly heavy, and taking up a quite disproportionate amount of space. In most of them it was almost impossible to sit without sprawling.

The model illustrated shows a return to sanity. It is not much larger than the conventional nineteenth century type, but avoids its hard upholstery and constrictive narrowness of seat. All the same this change of form has been dictated more by a change in the way people sit than by the adoption of new materials. True, the stuffing here is of rubberised hair, but after all that is only a new treatment of a very old material which improves its properties and economises its use.

It may be objected that one would hardly notice this easy chair in a room. If so, that must surely be counted a merit. Nobody could want his favourite fireside chair to look like a show piece of furniture. The check pile covering adopted is somehow more inviting and restful to the eye than the plain neutral-coloured cloths that were preferred in recent years.

11 The design of this cast-aluminium chair, a mass-produced model intended for hotels and restaurants, is a direct outcome of exploiting the properties of the light, but strong, metal it is made from. There is no attempt at imitating a form proper to wood. Indeed, neither arms nor back could have been profiled or attached in quite the same manner in wood without risking obvious structural weaknesses. It is, of course, not a question of aluminium being superior to wood for chairs, or *vice versa*, but—as always where there is a choice of materials—of each postulating a different type of construction derived from its own particular qualities. The check upholstery matches the angular pattern of the framework successfully enough. Altogether this is quite a worthy contemporary example of the vitality of the English tradition in simple furniture.



11 *Armed chair by Goodearl Brothers Ltd, High Wycombe, designed by E. L. Clinch, MS1A*



The textile display at Basle was credited by name to Donald Brun. In product design, names are less prominent

DESIGNER : ANONYMOUS

Report from Basle by Leopold Schreiber



AFTER REVISITING Switzerland and the Swiss Industries Fair at Basle one realises how vastly different is the Continental approach to all kinds of economic problems, compared with ours. So much so that I feel a short outline of the basic principles of a business mentality which is definitely self-contained and typically Swiss ought to be attempted, because it may lead to a better understanding of the present status of industrial design in Switzerland.

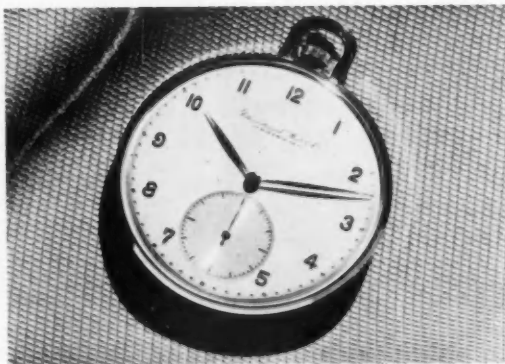
To begin with, the Swiss are fascinated by their great achievements in bygone days, when they established—in certain branches of industry—a unique position on the world market. Protected from great social upheavals, they became accustomed to a steadily increasing wealth and an impressive widening of their financial sphere of influence during long and successful trade periods . . . no wonder, then, that they tend to cling to the shelter of a prosperous past and do not take lightly to radical readjustments necessitated by post-war changes in industry and commerce all over the world.

For the Swiss manufacturers it is mainly durability that counts; their advertising booklets and catalogues make it plain that they are much less concerned about the *appearance* of their products. Instead of making any claims for their latest achievements in production, they sell their goods by telling the world how many years their factories have been established, and emphasising that long experience in this special field of quality work makes the product with a 50-year-old record worth the price asked for it, and probably much more.

Let me quote one example of this kind of publicity. Swiss watches are famous all over the world, and the International Watch Co—founded in 1868—has always had a reputation for producing very handsome models. This is how the introduction to their catalogue begins: "TRADITION: Quality is bound

up with tradition. This is proved by the history of the Swiss watch industry. The International Watch Co of Schaffhouse can justly claim to have been foremost in the development of that industry for four generations, during which time it has never once sacrificed the principle of quality to temporary successes."

This preamble puts a Swiss success-story in a nutshell, because here we have the main pillars for a great industrial achievement: Tradition, Quality, Craftsmanship. . . . And the reason why industrial design is not mentioned in this or any other Swiss catalogue is simply that, with very few exceptions, the industrial designer in Switzerland is not considered an essential member of the production team. Production managements have been trained to think in technical terms only, and what is nearest to their heart is the development work for which the engineer or the technical specialist is responsible. The works engineer and research people speak the language they thoroughly understand, but when I asked the representatives of different industries at Basle about their plans for new and up-to-date designs the response was usually disappointing. Their main asset, they told me, was industrial research; why should they bother to redesign those popular models which are selling



Two watches by the International Watch Co. Their publicity stresses tradition; the designer remains anonymous

DESIGNER: ANONYMOUS

continued

so well in the old and familiar patterns? Why should they, indeed? With export markets tightening or closing, other Swiss manufacturers were less optimistic about the near future, and some who visualised a tough time ahead for Swiss exports were contemplating for the first time the possibility of consulting an industrial designer.

We have seen before that it sometimes needs a crisis, or at least distinct signs of recession, to make the business man think of new design for products on which his works have long been running smoothly under favourable conditions with profitable results. Should the Swiss have to face new and complicated trade problems, industry might decide to call in consultants to advise them on fundamental changes in functional design, but it will take a long time for these "outsiders" to convince the production management that appearance is as important a requirement as performance.

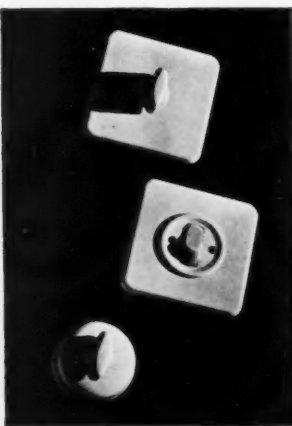
Switzerland has produced many highly qualified commercial artists, and for almost every kind of industrial-design job it would be possible to recruit talent from their ranks. The most convincing expression of a Swiss national style in graphic art is to be found in display and exhibition design, and several stands at the Basle Fair made it clear that no other country has developed this important type of publicity design to a higher standard of efficiency. Perhaps the Swiss style in display is not as sophisticated as we are used to seeing in this country, but the majority of their exhibition stands are carried out with a con-



The Mobilux lamp, by Aluminium Licht AG, Zürich, is infinitely adjustable for position—and well proportioned

scientious sense of quality and the imaginative work of such designers as Donald Brun, Eidenbenz, Leupin or Lohse—to mention only a very few names from a long list of excellent artists—would attract the greatest attention at any international exhibition. It was Brun, incidentally—the man who had the exciting compositions of the textile-hall *Création* and of the CIBA stand to his credit—who told me that not once in his career had he been approached to design an article for quantity production, although (or because) he has made a great success in advertising art.

The group of designers organised by the well-known Zürich architect Max Bill, under the name of *Schweizerischer Werkbund*, is widely known abroad as well as in Switzerland, but they represent the *avant-garde* in Swiss architecture and design, and their world is not the world of industry. Photographic reproductions of their impressive work were on show in a separate building at Basle; one had to walk across the road from the Fair to reach this isolated exhibition, which was called *Die Gute Form*.



Adolf Feller AG, manufacturers of these switches, have gained prominence in their field as a firm with an advanced design policy

The Swiss Hermes Ambassador typewriter, lavishly plated, can be compared with the Olivetti, illustrated last month

ENGINEERING DESIGN

A project for organisation, and news of some recent developments in Britain and France

Plan for a design centre in an engineering firm

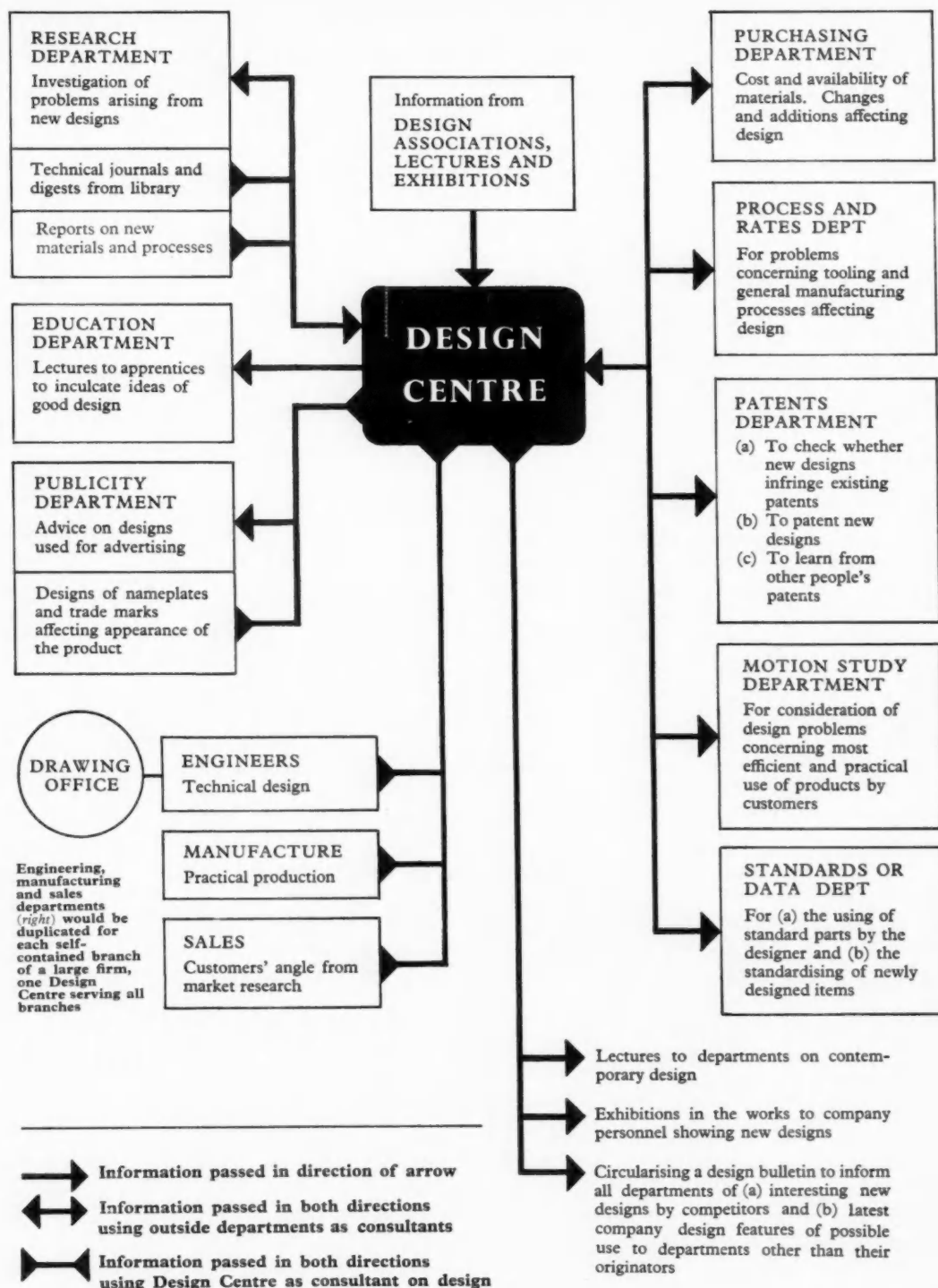
by R. M. Kay, B Sc Tech, Dip A A

THE PURPOSE OF a design centre in any firm is to act as the co-ordinating body for all matters affecting design which otherwise might be dealt with by many independent departments—or overlooked entirely. The functions which it can perform may be outlined as follows :

- 1 : To make available the services of a first-class industrial designer, or a team of such individuals, to assist departmental technical designers.
- 2 : To analyse the requirements of the sales departments as related to industrial design, and to assist the engineering and production sides to meet these requirements.
- 3 : To sift information made available by the research department and, where it concerns industrial design, to pass it on to design sections within the branches.
- 4 : To circulate news of new developments in one department to other departments likely to be interested.
- 5 : To ensure that adequate publicity is given to all new designs by feeding the publicity department with up-to-date information.
- 6 : To collect information on any form of design having a possible bearing on the company's products. This would include books and periodicals on design, classified cuttings from trade and technical journals, catalogues or other illustrations of competitors' designs, details of any exhibitions where good design could be seen, particularly of local design habits and trends in foreign countries and in other industries where the company's products may be used.
- 7 : To co-ordinate design between different departments in order to ensure that their products harmonise. This may involve the standardisation of certain features, dimensions or ratings.
- 8 : To foster a wider realisation of the need for good design throughout the company's organisation. Such propaganda, which might include lectures and exhibitions, would have to be repeated periodically in order to reach all new entrants to the firm.
- 9 : To co-operate with the education department in the training of industrial designers. This might also mean co-operating with outside training establishments.

The chart which accompanies this article represents the *modus operandi* of a scheme for an engineering design centre evolved for a particular firm. The firm is a large one and warrants its own centre in order to co-ordinate the work already being carried out by independent departments. The departments were a little too independent, however, though each in its own sphere was, in a varying degree, capable of designing excellent products. Moreover, the technicians as designers could not be expected to have the necessary flair for appearance design which high-quality products required.

The branches in a firm of this size—which are often as large, in themselves, as competitive firms specialising in their products—comprise three main sections: the engineers who design the products and control the drawing offices; the manufacturing staff responsible for the actual making of the products; the sales organisation. In the engineering field most large



ORGANISATION OF A DESIGN CENTRE FOR AN ENGINEERING FIRM

plant is made to order and although contact with customers may be through a tendering department this is counted as part of the sales organisation. A general engineering department may also function to work out all the detailed plans for complicated installations involving products from several departments and outside contractors. An erection department, with specially trained service crews, may take over in the later stages when products arrive on the site, and may also carry out periodical maintenance work. Both these departments are mentioned here because they are not included on the plan, but, like the traffic department, they must be consulted by the industrial designer if he is to ensure that the product, from the customer's point of view, functions not only according to schedule, but with that "something extra" conducive to repeat orders.

A study of the chart should make clear the way in which the design centre, even though introduced into a smoothly running organisation comprising many existing sections, could operate to raise the level of appearance design and to ensure that the varied products of the company bore that certain distinguished stamp reflecting their inherent efficiency in performance. It is not proposed to amplify here what is indicated roughly on the chart, since the details would naturally vary for every firm. A firm might possess only some of the separate divisions which exist in the case originally considered; in this event the centre would have to supplement the duties of the missing departments in so far as they affected the design of the product and its labelling and packaging (particularly for export). In the firm in question an exceptionally fine education system comprising trade, school and college (*i.e.*, graduate) apprentices provides a means of implanting the seeds of good taste, and thereby of good design in the long run, which should not be ignored by a firm prepared to invest in a long-term policy. Under the design-centre scheme a special class could be started in conjunction with the local school of art and technical college to provide an all-round training to embrace the aesthetic, technical and practical manufacturing experience necessary for anyone intending to specialise in industrial design.

The composition of a design centre in any firm must obviously be based on a consideration of existing facilities, plus factors affected directly by the type of product being designed. (It is assumed that reasonable internal or external facilities are available for the

production of blueprints, photostating and reproduction in quantities of typed reports and other printed matter; these are the mechanics of the organisation.) While the number of personnel must vary to suit circumstances, the following sections should be able to perform the functions described above :

- a. A central information office to collect data on contemporary design and to issue this to technical designers and draughtsmen. This office would include a reference library and space to file and exhibit photographs and drawings of both competitive and company designs. A digest of this information would be circularised in a bulletin issued preferably at regular intervals. The whole of this office might at first easily be run by one person.
- b. An administrative office responsible for the organisation linking the centre with other departments. The planning of design projects, arrangements for meetings, compiling of data for particular jobs, compilation of reports, etc, would be handled here; the smooth running of all other sections would depend on this office, which in a small centre again might require only one individual.
- c. A technical office in charge of the chief industrial designer. Members of this section would represent the centre as consultants to existing departmental design committees. If an outside consultant were to be employed, he would in effect become a part-time member of this section for the duration of his employ. This office is the heart of the centre.
- d. A drawing office with at least one draughtsman artist and where airbrush equipment would be available.
- e. A model shop for the preparation of experimental models and prototypes. This might be confined to equipment for woodworking, clay or plaster modelling if the heavier work could be executed by existing workshops, though the disadvantage of having to farm this work out will be obvious.

There can be no clear-cut divisions between the responsibilities of the various sections within the centre, and a certain amount of overlapping is essential if its services are to be efficiently rendered.

This plan, together with an adaptation of the chart to fit in with the set-up already existing, should provide at least the basic ideas for the establishment of a design centre for any engineering firm.

Family resemblance in machine design

by Raymond Harris, *chief draughtsman, Holden and Hunt Limited*

IN RECENT YEARS the designers of many commodities have made general progress in the direction of improved functional design. It is perhaps remarkable that engineering designers, and in particular designers of machine tools, have not more quickly become aware of the advantages of standardisation in design. The accompanying illustrations of machine tools have been selected as evidence that a policy of "family resemblance" need not be confined to consumer-goods or the simpler types of product. Study of these illustrations will, it is felt, satisfy the reader that the principle of standardisation has not only been satisfactorily developed, but has resulted in the production of well planned and cleanly finished machines.

That the method can be used successfully has been

proved beyond doubt; an attempt is made below to summarise its many advantages and to suggest the best means by which the policy may be put into effect. Clearly standardisation of design is not practicable for the manufacturer of single-purpose or speciality machinery built to individual order; but for the many designers whose business it is to produce a basic range of machines having the same application and varying only in size or capacity, its potentialities will undoubtedly prove interesting.

Three examples are illustrated, each of which represents a range of machines. Figure 1 shows the design from which the complete range of foot-operated spot welders has been evolved. This range (Figure 1a) comprises five machines, varying in capacity from five to 40 KVA. It will be noted that the medium-sized machine (25 KVA) was chosen as the basic design.

Figure 2 shows the medium-capacity machine in a range of fully automatic air-operated spot welders. Here again a "family" of machines was designed, having capacities from 25 to 100 KVA. Standardisation of design was effected not only in the main castings, but in all possible components, including piston assemblies and subsidiary gear such as air control valves and reducing valves. The procedure could not, of course, be carried to extreme lengths, because the electrical capacities of the machines do not vary in proportion with their mechanical dimensions; and, bearing this in mind, care had to be taken to maintain as far as possible proportions which would look right. (This particular problem would not arise in the design of a range of purely mechanical equipment.)

Figure 3 shows a small butt-welding machine, of which a range has been produced in capacities from 8 to 30 KVA. As in the instances already quoted, exact similarity of design was maintained wherever practicable and deviations from the basic design were admitted only when it was considered that the effec-

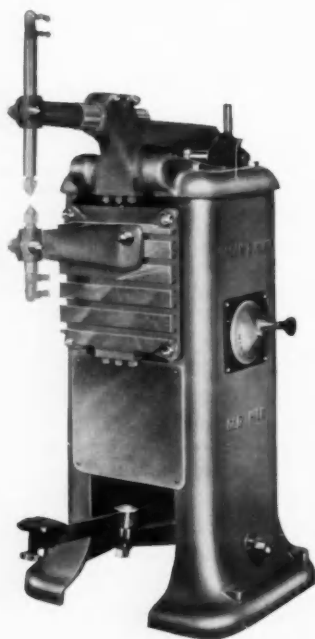
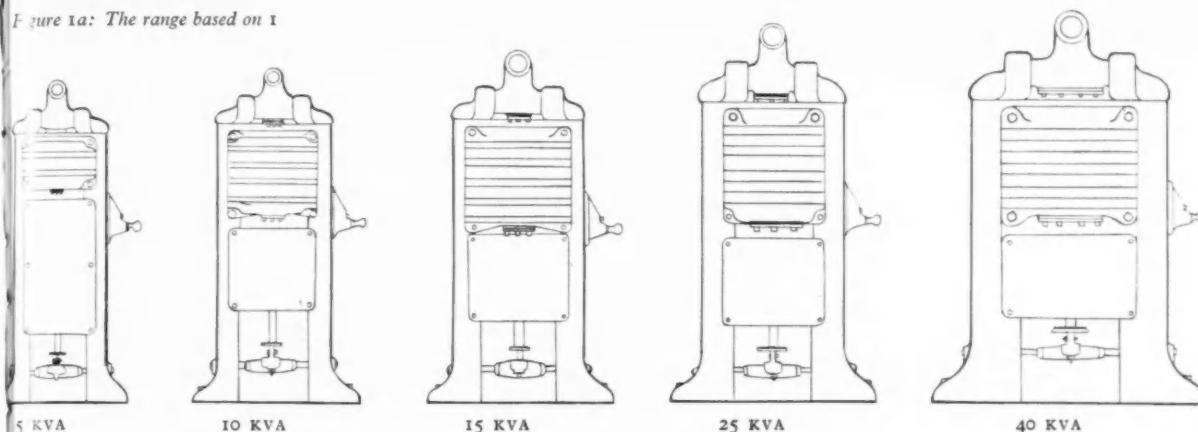


Figure 1: Basic design for range of foot-operated spot welders

Figure 1a: The range based on 1



tive operation of the machine made them necessary. In no case was the general style altered.

The advantages of such a programme of design standardisation as I have outlined cannot be too strongly emphasised. It will be immediately apparent that the machines in each range described above are alike in appearance except for size, each range having a degree of uniformity which makes any of the machines easily recognisable as the product of the same manufacturer.

Equally important to the designer, if not as obvious to the onlooker, is the fact that all parts—even such minor items as pins and nuts—become inter-associated. The advantages gained are helpful throughout the whole of a manufacturing organisation, from drawing office to spares department. One master system can be made to incorporate the whole range of machines, resulting in an organised plan under which part numbers, pattern numbers, code numbers,

and even the drawing numbers themselves, become identical except for the size prefix.

The economic advantages of standardisation are not directly noticeable on the production line, but are to be found in the administrative departments. Economies result from reduced overheads or on-costs, rather than direct production cuts.

It will be appreciated that the advantages of standardisation are not restricted to the manufacturer. The user will soon become aware of the implications of the system and will realise that it offers him both practical and psychological benefits—especially if he is proposing to lay out a new factory or shop. He will appreciate that it becomes possible for him to purchase machines of different capacities and to instal them in the production bay, not as a miscellaneous mass of machinery, but as a harmonious family. For such well-planned machines the well-planned modern factory provides an appropriate setting.

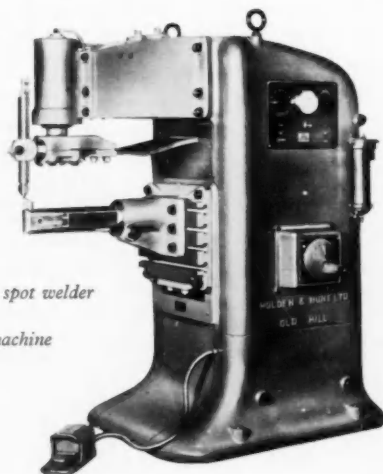


Figure 2: Air-operated automatic spot welder



Figure 3 (Right): Butt-welding machine

Sixty years of insulation testing

THE STORY OF THE *Megger* insulation tester begins in the 1880's. During that decade, the growing use of electric light and electric power made it evident that there was a need for an instrument capable of testing the insulation of electrical equipment at not less than working pressure. The first practical device for this purpose was designed and made by Sydney Evershed, MIEE. All the later testing sets shown here—intended for the same or similar uses—are products of Evershed & Vignoles Ltd, the firm which he jointly founded in 1894. (It was his partner, E. B. Vignoles, who coined the trade-mark *Megger*, a portmanteau-word from *megohm* and *meter*).

Two points in this long "success story" may be underlined: 1: At each stage, the introduction of new types of case and construction has been made practicable by the development of new materials and production techniques. 2: In the latest stage, the results of an industrial designer's co-operation with the firm's technical design staff are seen.

1889

Before this date, the measurement of insulation resistance had been a laboratory operation, involving elaborate apparatus and calculation. Sydney Evershed's direct reading instrument reduced it to a routine operation that could be carried out by an unskilled man. His first testing set was robust

1889



enough to be used anywhere. It consisted of a hand-driven generator to provide high voltage, and an ohmmeter to measure the electrical resistance of the equipment or material under test. All the later instruments have employed the same basic principle, though improvements have been effected in construction as in appearance. At first the generator and the ohmmeter were housed in separate wooden cases, well-made, but not very convenient to handle.

1904 SERIES I

In 1903-4, the inventor completely redesigned the instrument, housing the whole testing equipment in one case: it was now a complete and self-contained instrument. The wooden case shown below was adopted. With this instrument Evershed & Vignoles Ltd entered the Australian market in 1906 and the American market in 1910. For measurement over the widest ranges, this testing set remains in production and in steady demand. The same type of hardwood case with morticed joints is still in use. Indeed, its proportions could scarcely be improved.

1922 SERIES II

With the spread of electrification which followed the first world war, there was a growing demand for an insulation tester for the electrician's routine use, which need not be capable of testing insulation

1904 SERIES I



1922 SERIES II

resistances of very high values, but must be more easily portable than the earlier models.

New production techniques developed at this time made possible a radical change of form: the result was the introduction of the Series II *Megger* testing set, in a case of cast aluminium, with a grey metallic finish and plated handles. This new instrument was both smaller and lighter, measuring $8\frac{1}{2}$ inches long and weighing only $7\frac{1}{4}$ pounds, as against 14 inches and 30 pounds for the Series I.

1931 SERIES III

It was considered that a still smaller apparatus, suitable for the range of resistances normally found in house wiring and domestic electrical apparatus, would prove useful and saleable—if it could be made still smaller and lighter.

The development of plastic moulding assisted in the realisation of this project in the Series III tester (1931). By using a generator without the constant-speed regulator which is available in the larger instruments (and is necessary where large electrostatic capacities are involved) it was found possible to reduce the weight to 3lb, the size to $5\frac{1}{4} \times 4 \times 2\frac{3}{8}$ in.

The mottled surface of the case can be considered typical of its period in the history of plastics.

1946

When Evershed & Vignoles Ltd planned their post-war range of instruments, they decided to introduce a new model incorporating a constant pressure device, which would measure resistances over a wider range than the small Series III instrument (though still less wide than the Series I and II).

Satisfactory use of plastics in the pre-war miniature tester—and, no doubt, the future availability of plastic materials—influenced them in deciding to use plastics for this larger instrument. After a good deal of



1949 SERIES IV

experiment to obtain the best arrangement of components for use and for compactness, the finished prototype shown below was produced.

1949 SERIES IV

The appearance of the 1946 prototype was considered unsatisfactory, and for the first time a consultant industrial designer—James White (Industrial Artists) Ltd—was called in. The latest *Megger* testing set, now in production, is the result of co-operation between the consultant and the manufacturers' technical staff. It is—and looks—a sound engineering job, but its appearance is compact and contemporary. At the same time, nobody could say that it is, like some current "styling," merely fashionable.

Black with white lettering, the case is moulded in a thermo-setting plastic. It measures $7\frac{1}{4} \times 5 \times 5\frac{1}{4}$ in., and the weight of the instrument is 6 pounds.

1922 SERIES II



1931 SERIES III



1946



Two new designs from Birmingham

I HOW MANY LETTERS one must receive to justify the installation of a letter-opening machine is no concern of DESIGN'S; but as such machines exist and are being installed in considerable numbers, their design is legitimately our concern.

The Wombat letter-opener, illustrated here, shaves a very narrow strip from the edge of an envelope placed in it, by the action of two steel blades, of which one is straight and remains stationary, while the other is spiral and revolves. The initial production batch of this redesigned machine was sold within three days of its launching on the market—an achievement which can be attributed, to some extent, to its design.

Drastic changes from earlier models—changes in both operation and appearance—necessitated close teamwork between the manufacturers and their consultant designers. The appearance was not, as so often happens, “styled” after the mechanical redesign, but was planned as part of it, once the basic principles of the new action had been worked out.

The designers' first model incorporated a moulded plastic cover, but this was abandoned as, at the time, material and moulding tool supplies would have held up production. Various designs in metal were then evolved; the production model makes use of metal

pressings and castings as these could be produced economically and immediately. All parts, moreover, can be quickly and easily assembled.

The shape of the horizontal operating lever was evolved after various tests. Its cross-section is such that it can be operated with minimum pressure of the finger, and its length—10½ inches—permits the use of right or left hand.

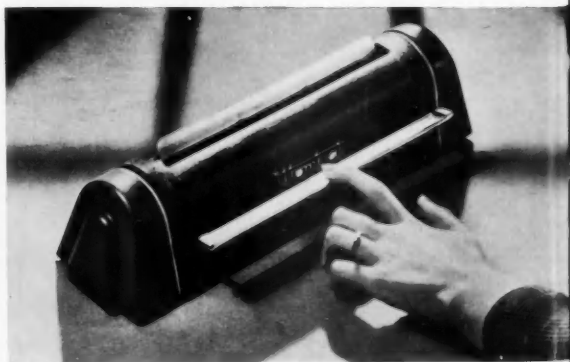
The clean lines of the Wombat are enhanced by its surface colours and textures. The main pressed steel cover has a wrinkle enamel finish; the end covers are sand-cast in zinc alloy and finished in gloss enamel. Beading is of coloured extruded plastic. Both the guide plate at the top and the operating lever are chromium-plated. Perhaps the one blemish marring the appearance of the machine is the unfortunate lettering of its name-plate—a weakness which is not condoned by the fact that it is common to many reputable products of British industry.

The Wombat, which sells in the home market at £5 5s, has been exported to Europe, Australia, South America and the Far East. Its makers (and patentees) are European Office Equipments Ltd, Walsall; designer, Leslie J. Harwood; consultants, the Design Unit of V. Siviter Smith & Co Ltd, Birmingham.

1927: an early model of the Wombat machine



Redesigned for ease of operation and better appearance



GEC's new floodlamp (below) shows a saving in production cost over the old model



2 A SUBSTANTIAL SAVING in production cost and a notable improvement in appearance have been achieved in the redesign of a GEC light fitting. The old fitting was designed some years ago and was originally intended for shop-window lighting. Since then, it has been used in various forms of interior floodlighting; and the manufacturers recently decided that its mechanical design was not robust enough for the wider field of use. Extensive changes which they considered necessary gave the opportunity for designing a completely new model to replace it. Meetings were held with lighting engineers and with electrical-installation engineers, practical tests were made, production and sales research was undertaken, and as a result the following requirements were specified for the new fitting:

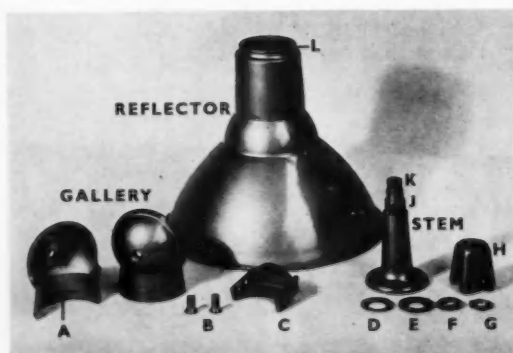
1. Light-distribution to conform to the polar curve of the old.
2. To accommodate 150-watt or 200-watt bulb with adjustable or fixed focal points.
3. Standard lampholder to be used.
4. Provision for wiring to lampholder to be internal or external.
5. Reflector to be movable in any direction, and to have a positive locking device.
6. To be suitable for fixing to any flat surface, vertical or horizontal, and to standard conduit boxes.
7. Good ventilation.

The old fitting had a spun copper gallery and mirror-glass reflector; the new is mainly die-cast and its reflector is of anodised aluminium. Metal was chosen for this part because of its strength, lightness and cheapness.

The stalactite shapes on the sides of the lock-nut are intended to make firm locking possible in any position. Interior floodlights are often mounted close to a ceiling, in an alcove, or in some other equally inaccessible position, and a finger-grip that facilitates locking by the hand, unaided by tools, is essential.

The new fitting was designed by K. F. Haylor, MSIA, of the General Electric Co Ltd.

GEC's new floodlight fitting is made up of the components shown below. The collar L of the reflector is clamped in the rim A of the gallery (which is die-cast in two identical halves). The gallery itself is held in position on the stem by being gripped between (1) the nut G and brass saddle F which screw on at K, and (2) the fibre washer E, steel cup washer D and adjustable lock-nut H which screw on at J. The bracket C, into which the lampholder [not illustrated] fits, is screwed into position in the gallery by the screws B



A milling machine and two cars from France

ILLUSTRATED BELOW are the two Gambin milling machines to which reference was made last month in our report of the Paris Trade Fair (p. 13). The smaller machine was the firm's first model, designed by A. Philibert in 1909 and put into production a year later; the larger is one of their two current models.

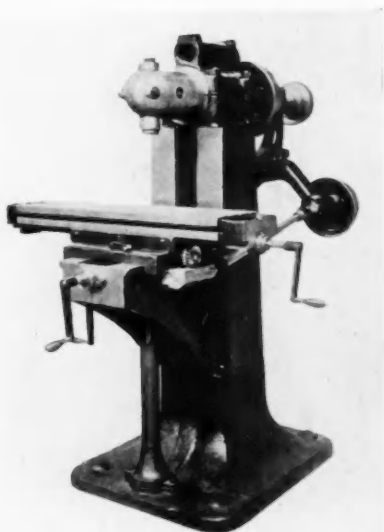
While the changes which have taken place have no doubt been determined by technical developments and the machine's widening field of usefulness, they have been accompanied by changes in appearance which make each machine typical of its own day. Even its manufacturers now speak of the "rusticity" that characterised the early model.

The manufacturers, C. Gambin & Cie, Billancourt, regard the first appearance of their milling machines in Britain—at Olympia in 1935—as a notable step forward in their steady market-development, opening up one of their most important export markets.

TYPICAL, IN APPEARANCE, of many new French cars is the Peugeot 203, which made its début at last year's Paris Motor Show and is now appearing on the road in some numbers.

Details apart, the 203 is of interest as an example of rationalisation: Peugeot has built a complete new factory at Sochaux for the production of this model.

When Peugeot first resumed civilian car manufacture after the war, they—like many British makers—had to be content with a slightly modified version of their pre-war design. The result was the Model 202, of 11.4 horse-power. The 203 is larger and has a more powerful engine (13.9 h.p.). In appearance—design it follows a familiar trend of today; its slight similarity in shape to the Jowett Javelin saloon—especially in the downswept and relatively narrow tail—is interesting. Integral body and chassis construction gives a weight of 17½ cwt.



Forty years' design development epitomised in two milling machines: left, 1909; above, 1949

MANY READERS OF "DESIGN" will no doubt remember the baby Fiat car which appeared on the roads of Britain in the 1930's. It was an internationally popular model; in France it was built under licence from the Italian Fiat company, and known as the Simca 5.

Now there is a new baby Fiat in Italy, and there is also a new Simca in France, but this time the French car differs materially from the Italian prototype. Mechanical changes have been made in both models; an overhead-valve engine has increased the power output by over 30 per cent: but the most interesting changes are in the body-design of the Simca model. Its middle section is virtually unchanged, but the re-shaping of front and rear portions has altered the appearance of the whole car; it looks considerably longer, though in fact its length is the same as before.

At the back, the new Simca 6 differs from the Simca 5 in having (a) a different type of bumper; (b) the spare wheel carried internally instead of in a shallow recess; (c) the number-plate and tail-lamp placed in the centre instead of at one side.

In front view, the emphasis is changed from vertical to horizontal by a redesign of the radiator grille. As in so many new cars, the headlamps are now built into the wings. Production has no doubt been simplified by the merging of components which were formerly separate; the effect of changes on the car's appearance is, however, debatable. Two observers may be quoted. One considers that "the frontal treatment has suffered from the usual American influence and the original rather pleasing appearance of the car has been very much spoilt"; the other, that "the shape of the radiator grille shows American influence, certainly, but it has not been made ridiculously large or showy, and the little Simca continues to look what it is—a small car and not an imitation of a large car."

From the pictures on this page, readers will be able to form their own opinions.

The rear end as well as the front of the new Simca car has received attention from the designer. Note cleaner line of the newer model, below, right



Above: New and old Peugeot cars. Below: Simca 6 and 5



LETTERS TO THE EDITOR

Brighter men's wear—one day

SIR: I was delighted to appreciate, from the correspondence pages of your June issue, that the scope of your excellent journal can range from the awe-inspiring beauty of the modern generating plant, to the mundanity of men's underwear.

Mr Bridgman and Mr Jayes are to be sympathised with in their rightful condemnation of the lack of variety and artistry in these particular garments. Unfortunately, a necessary concentration upon "utility" production precludes the full employment by our craftsmen of their latent designing ability, although enforced austerity is stimulating our thoughts and research into the channels indicated by your correspondents.

I can assure them that as soon as our present production problems are eased we shall endeavour to play our part in making available men's underwear of a design and colour calculated to inspire in its wearers a feeling of pride as well as comfort.

G. E. HOLLAMBY
Director,
I. & R. Morley Ltd

London EC2

Design and the retailer

SIR: I read your April leading article on the contemporary idiom in design, and later Mr Maurice A. Wimble's letter (July, p. 6), with considerable interest. It seems to me that, generally speaking, manufacturers and retail house buyers are jointly to blame for the present low standards of design. By no conceivable means can one attach the blame, or any part of it, to the eventual customer. In many instances, the customer is ahead of the manufacturer and retail house in terms of good taste in design.

It is a poor type of mentality, I think, which would not prefer to create a design and manufacture it, rather than copy design work of the past. I firmly believe that most manufacturers would prefer to create; that is why they are manufacturers. Why, then, do they not produce new design? The answer is not simple: it involves suspicion of "arty-crafty" work, retail buyer dictation, and in some cases a complete ignorance of what is good or bad taste. J

Furthermore, most people adhere to the proverb that "the devil you know is better than the devil you don't"; so a good deal of design enterprise is lost. . . .

The case against the average retail distributor is even more complete. Generally speaking, little or no attempt is made to present furniture attractively. I believe that many distributors either cannot or will not read the simplest lists, and in many cases they fail in an essential part of their function—the ability to provide their customer with reliable information as to the products they endeavour to sell. It is true that there are many distributors who, in their own opinions, have honestly endeavoured to interest customers in contemporary design: usually the attempt at best is half-hearted, and lasts for the duration of that particular stock, whereas to pursue a consistent policy is the only way to success.

One of the root difficulties is in the selection and training of retail buyers. Most have been in the trade for many years and profess to know *exactly what their customers require*. This attitude of mind is probably the greatest single factor retarding good furniture design in this country, because it affects both manufacturer and customer. Obviously if good design is not in the shops customers cannot buy, and if the shop will not buy, the manufacturer will not make.

In larger retail houses the monthly or quarterly profit return is a weapon with which the directorate beats up the buyer. Thus a short term policy is imposed, and this acts against the building up of a good business in contemporary design.

W. NOEL JORDAN
Managing Director,
Ernest Race Ltd

London SW4

Over-emphasis on teamwork

SIR: While it is possible that the over-stress laid in the past on the individual aspect of industrial design has now been equalled by an over-emphasis on teamwork, and that this may account for Mr C. H. Golding's apparent dislike of the term (DESIGN, June, p. 19), design in engineering cannot in fact, as Mr

Golding admits, be the unaided work of one individual. He ascribes the limitation to the difficulty of working more than 24 hours a day; I would add to this the difficulty of allotting more than 50 years to a designer's education.

When Mr Golding and I discussed the technique of design, I had the privilege of seeing his organisation in action. To meet the conditions of the day, I thought it admirable—because it was essentially a team, self-contained and covering mechanical, production and all aesthetic aspects. As I see it, Mr Golding has such an organisation because he recognises the difficulty of getting the recognised teamwork between the engineering design organisation of a firm and an external aesthetic adviser. This method is probably the best that can be done by an external organisation in many cases, but it is still a sign of weakness in industrial organisations that they cannot do the work for themselves in the same way. They will not be able to do so until Mr Golding's rare bird, the "thorough-going engineer [with] trained aesthetic talent," becomes as common as the house-sparrow.

Mr Bowden draws attention to the needs of the small firm. Admittedly this problem is, in the absence of a generally more liberal education for engineers, more difficult. For a small firm to acquire one of the "rare birds" is difficult. But the fact that it is difficult does not make it any the less desirable; nor would it remain difficult indefinitely if the training of engineers and draughtsmen were designed to fit them for the work they should undertake. Both Mr Golding and Mr Bowden have a strong case for the methods they use to meet the shortcomings of industrial firms, but to claim that these methods are ideal seems to me to be like advocating the maintenance of a diabetic race on the grounds that the deficiency can be made up with insulin.

In conclusion, may I again emphasise the importance of that decent anonymity which has customarily been associated with industrial engineering. Such anonymity is essential for the development of proper collaboration between the individuals in any organisation. So long as designers are outside industry, they must advertise themselves; so long as they advertise themselves they will be regarded with some mistrust by the other technicians who should be their colleagues. The answer is to make all aspects of design an integral part of industry. To do that, designers and technicians must understand each other's jobs; and such understanding can only come as the result of a revision of our educational policy.

London W1

A. WHITAKER

Colour on the counter

Display design plays an important part
in new marketing policy for soft drinks

THERE CAN BE few people in this country to whom the name of Schweppes Ltd is wholly unfamiliar: the firm's consistent advertising over a period of years has seen to that. To different people, however, "Schweppes" means different things; to the majority it means tonic water or ginger ale or soda water; only to a smaller number does it suggest the sparkling fruit drinks—

grape-fruit, lime, orange and lemon—which the firm produces also.

Schweppes' present marketing policy aims to increase the demand for these fruit drinks, and at the same time to strengthen distribution of the firm's products through grocers' as well as wine merchants' shops. In this policy design has an important part to play: new labels and new display units have

been introduced to win the retailer's goodwill and to catch the consumer's eye at the point of purchase.

Some months ago, F. C. Hooper—Brains Trust member, speaker on design, former joint managing director of Lewis's Ltd and business consultant—was appointed managing director of Schweppes Ltd. One of his first actions on taking over was to address an enquiry to the Council of Industrial Design for the names of likely designers for Schweppes' packaging and display material. From the names submitted by the Council's Design Advice Section Lewitt-Him (Jan Lewitt and George Him) were chosen as consulting designers to the company. Some of their work is shown here. Appropriately for the products concerned, colour and gaiety characterise it all. The new labels use more colours than the old, and cost slightly more to print; but Schweppes believe the additional expense is justified. The display unit, produced in quantity and intended primarily for use on grocers' counters, packs flat and can be easily erected from its packed form.

Current Press advertisements include illustrations of the bottles, intended to familiarise the public with the appearance of the new labels.

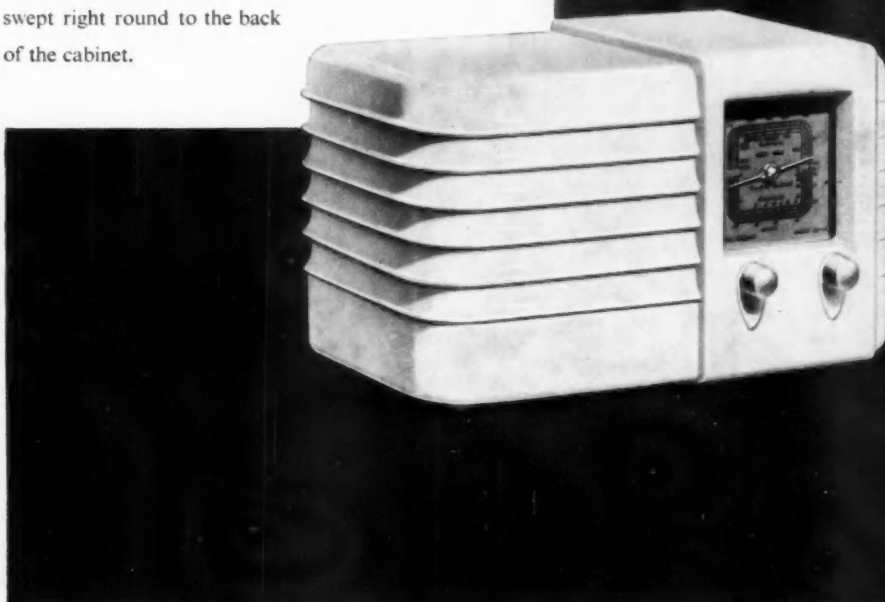
Display unit made (and patented) by Henry Hildesley Ltd, London E; labels printed by Alf Cooke & Co Ltd, Leeds (orange and grape-fruit) and Delittle Fenwick & Co Ltd, York (lemon and lime)

The suggestion of summiness is achieved by wholly artificial shadows printed on the background of the stand

Below, for comparison, the old and new labels for Schweppes Sparkling Lemon are shown side by side. Blue and cream have replaced maroon as the dominant colour



The pure colour and pleasantly rounded contours of this radio cabinet moulded in ivory Beetle for McMichael Radio Ltd. arrest instant attention. Note the absence of the conventional fret. The speaker outlet is through slits concealed under the fluting, swept right round to the back of the cabinet.



Beetle combines beauty with practical properties important to radio and electrical manufacturers—high dielectric strength, good insulating and high non-tracking properties. Beetle offers a wide range of beautiful colours ranging through the pure primaries to the palest of pastel shades for producing translucent, semi-translucent and opaque mouldings. For electrical components, where the same properties are required but price is a first consideration, choose opaque Scarab, the economical, easy-moulding wood-filled powder now available in a new range of pastel shades. From a light switch to a radio cabinet there is available a suitable grade of Beetle or Scarab, coloured or plain, and the B.I.P. Technical Service is always on call to help you choose the right material and to ensure the best results.

Beetle and Scarab Moulding Powders conform to the Standards laid down in B.S.1322.

BEETLE AND SCARAB

AMINOPLASTIC MOULDING POWDERS



Distributed by **THE BEETLE PRODUCTS CO. LTD.** 1 Argyll Street, London W.1.

BEETLE and SCARAB are trade marks registered in Great Britain and in most countries of the world.

NOTEBOOK

Exhibitions to come

NEW TEXTILES and new applications of established textiles will be shown in an exhibition organised by the Council of Industrial Design, to be held at Murray House, Petty France, London SW1, from 20 September to 15 October.

Exhibits will include a piece of cloth specially designed and woven by Margaret Leischner for R. Greg & Co Ltd, to show the various uses of their yarns and display to best advantage how texture may be achieved by the design of the yarn itself.

Also to be shown is a new development in upholstery material by British Replin Ltd—an adaptation of the Gobelins tapestry principle to machine looms. Roosen's Silks Ltd are providing an exhibit of their cotton *soie*, illustrating its uses for interior decoration; and British Nylon Spinners Ltd will have on view a range of furnishing and upholstery fabrics, some of which, being still in the experimental stage, will show designers what they may expect from nylon.

Exhibits are being selected with the co-operation of the Cotton Board's Colour, Design and Style Centre, the Rayon Design Centre and the International Wool Secretariat.

The Exhibition of Flexible Packaging Materials at Murray House, which was attended by over 1200 trade buyers and designers during May, is being taken to Scotland by the Scottish Committee of the Council of Industrial Design. It will be shown in Glasgow from 19-30 September at the Engineering Centre (address: 351 Sauchiehall Street). The Trade Commissioners of Australia and New Zealand have enquired whether they could show it throughout their countries, and it is hoped that this also may be arranged.

Book design

The adjudicators in the recent book-design exhibition of the National Book League were the first to admit the disappointingly low standard of many books submitted for this, the fourth exhibition of its kind since the end of the war. Considering how large a percentage of the total reading-matter of the country is made up of current fiction, it was depressing to find that

only three current novels could be adjudged worthy of a place among the 50 best-designed books of the year.

Criticisms have already been made, at greater length than is here possible, in the official catalogue of the exhibition (NBL, 1s 6d) and in the *Bookseller* of 18 June. Readers in the provinces still have an opportunity of seeing for themselves, as the exhibition is to tour under Arts Council auspices. Dates already announced are Bebington, 20 August—3 September; Loughborough, 10-24 September; Burton-on-Trent, 3-7 October; and in 1950, Mansfield, 2-21 March.

Books about design

Public Transport is the latest volume in the Penguin "Things We See" series (2s 6d). Its author is Christian Barman, RDI—who is this year's president of the Society of Industrial Artists, in succession to Milner Gray.

Popular Art in the United States, by Erwin O. Christensen, is a new King Penguin (also 2s 6d). It deals with a

subject about which too little is known in this country—the folk-art of the United States from Colonial days to the end of last century. Like its creators, this was European in origin, but soon developed characteristics of its own.

DESIGN understands that the originals of the illustrations in this book—which come from the Index of American Design—will be on show at the Tate Gallery during September.

Wild Flowers (1s 6d) is a Puffin Picture Book. Its subject is nature, not art; but it comes within DESIGN's sphere because of the high standard of design and production in the book itself. The many illustrations were drawn on *Plasticorwell* film, and the book is printed by W. S. Cowell Ltd in colour throughout (by offset-litho). Indeed, it contains so much colour—and such accurate colour—that many publishers' production men will no doubt be wondering how Penguins can do it for the money.

Other, more costly, new books with a bearing on design are so plentiful that we can hardly do more than list them here—and hope to return to some of them at a later date.

In *Mechanization takes Command* (Oxford University Press, New York, 50s) Siegfried Giedion is primarily concerned with the machine in social history; but his text, and his accompanying illustrations of nineteenth-century machines, give the book exceptional design interest.



Brown's of Chester staged an exhibition of furnished rooms previously shown by the Council of Industrial Design at the Ideal Home Exhibition: above, bedroom from a doctor's maisonette designed by Ian Henderson. Such enterprise is a reminder that there are exceptions to the conservatism and over-cautiousness of which retailers have been accused in recent correspondence (July, p. 6; this issue, p. 20)

Design for Print by John Brinkley (Sylvan Press, 10s 6d) includes a mass of technical information on the various printing processes—with inset specimens—and a guide for the would-be designer in printing works or advertising agency: obviously written from first-hand experience.

Also concerned with design in printing are Stanley Morison's *Four Centuries of Fine Printing*, originally a costly limited edition, now reprinted by Benn at 30s (with 272 reproductions of title-pages); *Approach to Type Design* by John Biggs (Blandford Press, 16s); and the first number of *Typographica* (Lund Humphries), edited by Herbert Spencer, MSIA, well produced but disappointing value at 5s for three articles. No. 1 of *Image*, the long-awaited successor to *Alphabet and Image*, has now appeared from Art & Technics (5s). Its concern is with the graphic arts: it runs true to form in high standard of production.

Building for Daylight (Allen & Unwin, 21s) includes an admirable "design development story" in John Gloag's introductory historical note on English window design: beautifully illustrated by Hilton Wright.

RSA's new chairman

New chairman of the Royal Society of Arts (in succession to Sir Harry Lindsay) is Ernest W. Goodale, CBE, MC, managing director of Warner & Sons Ltd, silk weavers and furnishing fabric manufacturers. In accepting this new appointment Mr Goodale has found it necessary, owing to the many demands on his time, to resign from the Council of Industrial Design, of which he has been a member since its formation in 1944.

Voices of Industry

Notable new publicity books from manufacturers include *Britain's New Industry*, commemorating the building of the Shell chemical plant at Stanlow. This book is designed by F. H. K. Henrion, FSIA, and printed at the Curwen Press; abundant illustration and lavish use of colour suggest that no expense has been spared.

EM, house organ of Edward Mortimer Ltd, printers, Halifax, shows what a relatively small business can do in house-organ production, if it is sufficiently enterprising.

Christy & Co Ltd mark the 175th year of their business with *175 Years of Hats*, by Arthur Sadler, FRSA.

The attention which company chairmen are giving to design at their annual

general meetings is indicative of industry's growing realisation of the subject's importance. Thus Sir Clive Baillieu of the Dunlop Rubber Co Ltd: "The need for the highest possible design and quality of the company's products is fully recognised. . . . It has been recognised that the [home] market for footwear is becoming highly competitive and that continued progress will depend on good design and style development.

. . . A Footwear Style and Design Centre was created by the Footwear Division of the Company towards the end of last year. The results achieved have been most encouraging."

And E. G. Ashwin of the Goldsmiths and Silversmiths Co Ltd: "We have always realised the vital necessity of developing jewellery and silverware of contemporary design. . . . By carrying out the policy so far as is possible of having the best of modern design represented in our stock, we are able to contribute materially to the country's exports."

British Industrial Plastics Limited, belatedly celebrating their jubilee which fell during the war years, recently told their story—from the foundation in 1894 of the British Cyanides Co Ltd to the invention of Beetle resin in 1925 and the adoption of the present name in 1936. The BIP group now comprises a parent company making the raw material, with one subsidiary producing steel moulds, another producing trade mouldings and proprietary lines and conducting development work. A new subsidiary will soon be making automatic moulding presses, with which, it is stated, "all the operations carried out by hand control can be set on the timing mechanism and reproduced at the touch of a button."

Americana

In America six women fashion specialists have been appointed to advise on the development of uniform and clothing for women members of the Army and Air Force. Their activities, we are told, "will include a long-range study of the clothing needs of women in military service, recommendations and approval of colours and fabrics most appropriate and becoming to military women in both peacetime and wartime." Appearance, as well as usefulness, will come within the committee's purview; an example which other countries might follow.

According to *Materials and Methods*, USA, the following is a high-school girl's definition—given in a science examination—of a bolt and a nut: "A bolt is a thing like a stick of hard metal such as iron with a square knob on one end and a bunch of scratching wound around the other end. A nut is similar



This early Swiss instrument, with right-angle bend between mouthpiece and earpiece, adds point to P. Morton Shand's comment (p. 2) on national differences in the shape of telephones

to a bolt only just the opposite, being a hole in a little chunk of iron sawed off short with wrinkles around the inside of the hole."

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GOLD IN BRITAIN

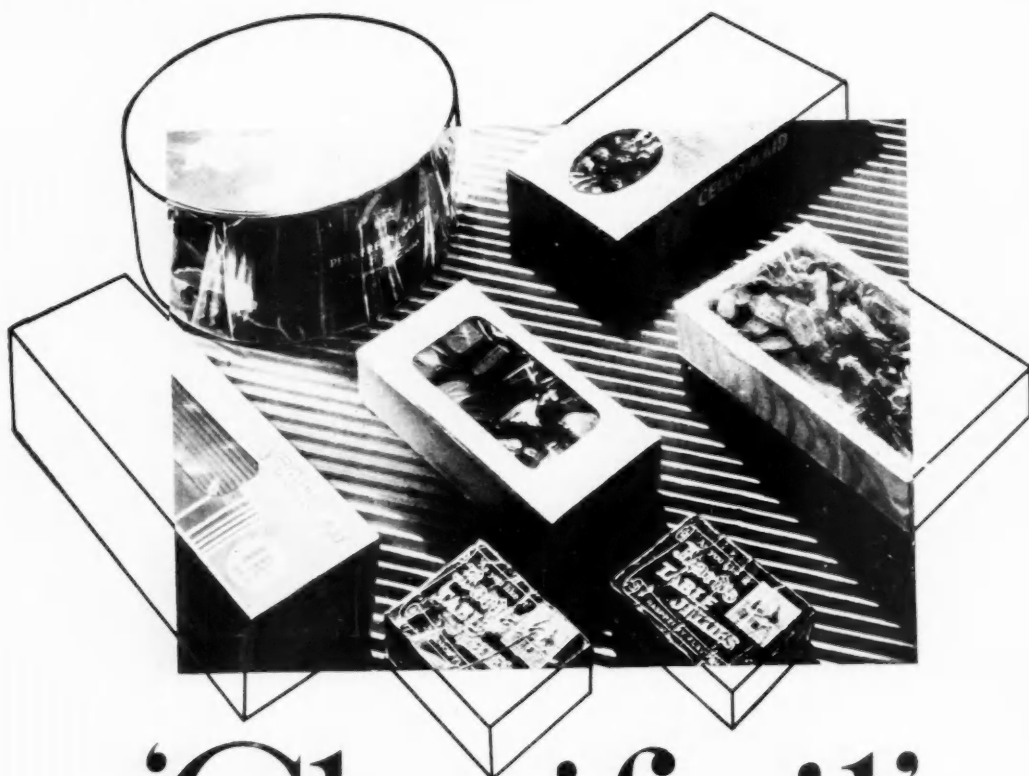
Britain is not a recognized gold bearing country, but there is gold in Britain. The Romans knew this, and mined it, notably in the valley of the Cothi in Carmarthenshire, where they had a flourishing settlement. The British Empire on the other hand is the greatest producer of gold in the world. Gold mining is no longer an affair of pick and shovel and washing-pan, but a highly developed industry in which chemicals are used extensively. Indeed, gold production on the scale carried on to-day is only possible as a result of British chemical research. In 1890 the position of the great South African industry was critical. The extraction of gold from the Rand reef was becoming impossible, and it was actually thought that the end of the industry was in sight. In the cellar of a Glasgow tenement a young chemist named MacArthur was

working on a process for extracting gold from ores by means of cyanide. MacArthur had noticed that the method then in use for toning photographs used a solution of gold, and he was able to prove that a weak solution of cyanide would dissolve the gold from the ores, leaving the base metals behind. He was sent to demonstrate his method to the Rand mineowners. For two days and nights he worked on the problem at the Salisbury mine at Johannesburg. Late on the third day he produced a small ingot of gold. It showed 98 per cent. extraction! The Rand gold mining industry was saved. To-day the cyanide method of gold extraction is used in gold mines all over the world. Even gold depends for its production upon the work of the British chemist.



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P.R.8



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